

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: Massoud Kayvanjah

GENERAL INFORMATION:

Name:	Kingsford Manufacturing Company
Address:	Metcalf County, PO Box 9 (5126 Summer Shade Road), Summer Shade, KY 42166
Date application received:	January 29, 2008
SIC/Source description:	2861/Charcoal Briquet Manufacturing
Source ID #:	21-169-00012
Source AI #:	3159
Activity #::	APE20080001
Permit number:	V-04-025 R2

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input checked="" type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
X Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input checked="" type="checkbox"/> Not major modification per 401 KAR 51:017, 1(23)(b) or 51:052,1(14)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☐ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Controlled Total (tpy)	Title V Potential (tpy)
CO	24	24
NO _x	408	408
PM ₁₀	474	**474
PT	484	484
SO ₂	32	32
CH ₃ OH	0.4	0.4
VOC	124	124

** There is no Change in Title V Potential Emissions other than the Change in Method of Operation.

CURRENT PERMITTING ACTION:- MINOR REVISION V-04-025 R2

Kingsford Manufacturing Company (KMC), submitted an application on January 29, 2008 for a minor revision to their permit V-04-025 R1, for the addition of an alternative material handling for emission unit 01 (Wood Dryer and Furnace operations). The proposed operation will reduce particulate emissions from the char furnace emission unit 01 resulting from burning the wood fines collected by the wood dryer cyclones. Under the current operation, wood fines are captured by the wood dryer and either fed into the top or bottom of the charcoal furnace where the fines are combusted, which produce particulate emissions. The new process will include the installation of a screw conveyer system that will allow these fines to bypass the charcoal furnace, and be added to the char produced by the furnace, after the char has been discharged from the furnace and quenched with water. For emissions reduction purpose the wood fines are bypassed from the furnace and are added to the produced char wood after the char is quenched in water. The facility wishes to maintain the flexibility to add the cyclone fines to the furnace as is the current practice. The modified process and the unit is subject to the applicable state and federal regulations in the Title V permit, and the emission unit emissions cap will stay unchanged

Off-Permit Changes, since V-04-025 Revision 1:

(APE 20050008) – KMC submitted application on September 16, 2005 for a minor permit revision for converting the existing briquets spray-solvent system to a dip-solvent system, and for installing a new conveyor system to rerun the damaged briquets packages from the packaging floor to the hopper/scale area. The new solvent application process consist of conveyor dipping briquets through a bath of solvent within the existing vapor control/recycling system. The limit of 20 tons/hr of solvent treated briquets production and VOC fugitive emissions is not changed. The minor

change is reflected in the permit. Also installation of the conveyor is added on the insignificant activity list of the permit.

(APE20050009) – KMC submitted application on November 7, 2005 for addition a dust collector hood to the existing dust collector of the packaging operations, and for addition of a plastic wrapping process to combine two bags of briquets together. There are no changes of emissions from these operation/process additions.

(APE20060001) – KMC submitted application on February 10, 2006 for providing reversible motion to the existing conveyor used to convey briquets to a packaging line and provide match light system from four more silos.

(APE20060003) – KMC submitted application on April 4, 2006 for relocating the screw conveyor of the dry wood feeder into the furnace from the top of furnace position to the side of the furnace shell. The new positioning of the feed entering from side on to the rotating rabble arms, instead of 12 feet drop of the feed material into the hearth unit #1 reduces the resultant particulate emissions. No change in permit is required.

(APE20060004) – KMC submitted application to replace the existing 10,000 gallons solvent storage tank of unit06 with a 20,000 gallons storage tank. The capacity and the vapor pressure of the solvent fall within the ranges exempted from Subpart Kb.

(APE20060005) – KMC submitted application on September 11, 2006 for addition of a dust collection hood for the briquets packaging area. The proposed addition will not affect the permitted volumetric exhaust rate, permitted emission rate of the packaging operation.

(APE20070001) – KMC submitted application on February 20 2007 indicated that the proposed Nitrate Silo (STOR 9001) listed under (EU-04) of the permit V-04-025 R1 will not be installed; and therefore is removed from the permit.

PAST PERMITTING ACTION: - V-04-025 Revision 1

The Division on February 23, 2005 received from Kingsford Manufacturing Company (Kingsford), a filed motion (DAQ 27044-037) to the Office of Legal Services of the Environmental and Public Protection Cabinet on February 15, 2005 requesting an increase to the hourly particulate matter (PM/PM10) emission limit from 3.58 lb/hr to 4.68 lb/hr for Dryer #3 and Cooler #3, and nitrogen oxide from 4.95 to 5.95 lb/hr. Kingsford later on submitted withdrawal resolution to the petition to the Division on March 29, 2005, to end the litigation, and suggested an annual production cap for the Dryer but an increase in the hourly emission limit. The increase in the hourly emission limit is a change in method of operation or major modification in accordance with 401 KAR 52:020 and 40 CFR 70, but does not trigger a prevention of significant deterioration (PSD) review for the facility, nor is it a significant modification under Title I of the Clean Air Act. In accordance with 40 CFR

52.21 and 401 KAR 51:005, the maximum potential emissions for all regulated pollutants from the proposed unit were calculated based on 8760 hours per year, and has not changed since the issuance of the initial Title V. The major modification will not increase the potential emissions from the Dryer #3 or Cooler #3 due to the federally enforceable annual briquet production cap of 56,940 tons per year, and will preclude the applicability of 401 KAR 51:017 for the units. Based on the evaluation, the future projected and the maximum potential emissions of the PSD regulated pollutants are below the Significant Emission Rate (SER) [401 KAR 51:001, Section 1(222)(a), and there are no hazardous air pollutants (HAP) emissions from the units.

CONDITIONS LIMITING DRYER #3:-E.Unit 02

Operating Limitations:

Dry briquet production in Dryer #3 and Cooler #3 (tons of dry briquets packaged) shall be limited to 56, 940 tons per year.

Emission Limitations:

In order to preclude 401 KAR 51:017 significant revision applicability for the installation of Briquet Dryer #3, the briquette production rate shall not exceed the limit specified above.

The NO_x emissions shall not exceed 5.95 pound per hour from the Briquet Dryer #3.

The PM/PM₁₀ emissions shall not exceed 4.68 pounds per hour from the Briquet Dryer #3.

Compliance Demonstration:

For compliance with the briquette production cap for Dryer #3, the total monthly briquets packaged (dry basis-excluding solvent) shall be determined and added to the production total for the previous consecutive eleven (11) months. The consecutive twelve (12) month production rate shall be divided by three (3) to determine the briquette production rate in the Dryer #3. This total shall be maintained below the production cap set for Dryer #3 above.

CONDITIONS LIMITING COOLER #3:-E.Unit 03

Operating Limitations:

Dry briquet production in Dryer #3 and Cooler #3 (tons of dry briquets packaged) shall be limited to 56, 940 tons per year.

Emission Limitations:

In order to preclude 401 KAR 51:017 significant revision applicability for the installation of Cooler #3, the briquette production rate shall not exceed the limit specified above.

The PM/PM₁₀ emissions shall not exceed 4.68 pounds per hour from the Briquet Cooler #3.

Compliance Demonstration:

For compliance with the briquette production cap for Cooler #3, the total monthly briquets packaged (dry basis-excluding solvent) shall be determined and added to the production total for the previous consecutive eleven (11) months. The consecutive twelve (12) month production rate shall be divided by three (3) to determine the briquette production rate in the Cooler #3. This total shall be maintained below the production cap set for Cooler #3 above.

The permittee shall follow the monitoring, recordkeeping and reporting requirements for the Dryer #3 and Cooler #3 in the current permit-V-04-025 issued on December 29, 2004.

PAST PERMITTING ACTION-INITIAL SOURCE WIDE TITLE V PERMIT:-V-04-025

The source manufactures charcoal briquets. The plant was constructed in the early 1990's by Hickory Specialties as a minor source. The plant was sold to Royal Oak and then to Kingsford Manufacturing Company in 1999. A PSD application was submitted in 1999 for increased production and modifications of units.

Kingsford Manufacturing Company was issued permit F-01-005 on July 2, 2001, subject to Prevention of Significant Deterioration (PSD) regulations for construction/modification increases in particulate matter (PM), particulate matter less than 10 microns (PM₁₀), and nitrogen oxides (NO_x) of over 100 tons per year (tpy). The facility is classified as a Title V major source of air pollution, based on the potential to emit more than 100 tpy of PM₁₀, NO_x, and volatile organic compounds (VOC). The Kingsford Summer Shade plant is also classified as a major source as defined by 401 KAR 51:017 and the federal PSD regulations in 40 CFR 52.21, based on the potential to emit more than 100 tpy of PM, PM₁₀, NO_x, and VOC.

The permittee has existing synthetic minor permits for limiting the emission of sulfur dioxide (SO₂). The permittee has agreed to limit SO₂ emissions from Emission Unit 01, to preclude PSD significant revision applicability for the modification of the furnace/wood dryer (F-01-005), and from Emission Unit 02 and 03, for the installation of Briquet Dryer #3 and Briquet Cooler #3 (F-01-005 Revision 1).

Draft permit V-04-025 is for minor modifications to the facility, and is the first source-wide, Title V permit, for the facility. In order to preclude PSD significant revision applicability for the installation of the proposed Char Silo #4, Lime Silo, and Nitrate Silo, operating limits were taken in draft permit V-04-025. The draft Title V permit includes a Compliance Assurance Monitoring (CAM) plan for particulate emissions from the After Combustion Chamber (ACC).

The proposed facility modifications will result in minor emissions increases, per PSD regulations. The facility potential emission increases from the minor revisions to the facility are as follows:

1. Increase plant's coal drop points limit from 50,000 tons/yr to 100,000 tons/yr	see #5
2. Addition of emission unit "Alternative Wood Truck Receipt"	1.89 tpy of PM 0.89 tpy of PM ₁₀
3. Change in vehicle miles traveled (VMT) on roadway emissions	2.73 tpy of PM 0.67 tpy of PM ₁₀
4. Increase in hourly briquet dryer/cooler production rate	(no change in emissions) 0.0 tpy of PM, PM ₁₀ , and NO _x
5. Emission calculation and modification for coal drop point	0.096 tpy of PM 0.046 tpy of PM ₁₀
6. STB emission basis on lbs VOC per ton of STB produced and request for 98	(no change in emissions) 0.0 tpy of VOC

tons/yr limit on VOC	
7. Addition of emission units "Pile Wind Erosion and Bulldozer Traffic, Plant Roadways, and Outside Wood Storage"	2.75 tpy of PM 1.29 tpy of PM ₁₀
8. New lime silo, new char silo, and conversion of existing lime to starch silo	0.24 tpy of PM 0.23 tpy of PM ₁₀
9. New warehouse road and new lot	1.88 tpy of PM 0.50 tpy of PM ₁₀
TOTALS	0.0 tpy of VOC 9.59 tpy of PM 3.63 tpy of PM ₁₀

EMISSION AND OPERATING CAPS DESCRIPTION:

See table above

OPERATIONAL FLEXIBILITY:

N/A